

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV

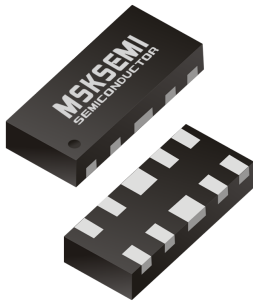


GDT



PLED

Product data sheet



DFN2510-10

## Features

- 60Watts peak pulse power ( $t_p = 8/20\mu s$ )
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance ( $C_j = 0.2pF$  typ. I/O to I/O)
- IEC 61000-4-2  $\pm 20kV$  contact  $\pm 25kV$  air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 4A (8/20 $\mu s$ )

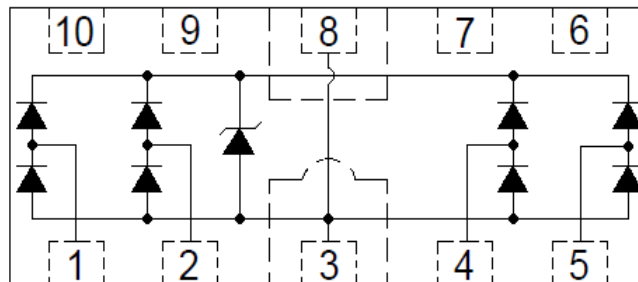
## Mechanical Data

- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

## Applications

- USB3.0, USB2.0, Ethernet
- HDMI 2.0, Displayport 1.3, eSATA
- Unified Display interface
- Digital Visual Interface
- High speed serial interface

## Schematic & PIN Configuration

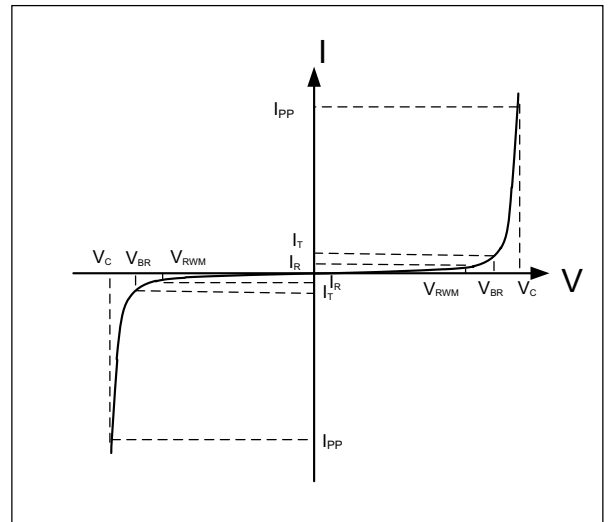


**Electrical Characteristics**

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	$V_{RWM}$				5.0	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6.0			V
Reverse Leakage Current	$I_R$	$V_{RWM}=5V, T=25^\circ C$			1	$\mu A$
Peak Pulse Current	$I_{PP}$	$t_p = 8/20\mu s$			4	A
Clamping Voltage	$V_C$	$I_{PP}=4A, t_p=8/20\mu s$			15	V
Junction Capacitance	$C_j$	$V_R = 0V, f = 1MHz$ I/O to I/O		0.2	0.3	pF
		$V_R = 0V, f = 1MHz$ I/O to GND		0.4	0.55	

**Electrical Parameters (TA = 25°C unless otherwise noted)**

	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current



Note: .8/20 $\mu s$  pulse waveform.

## Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

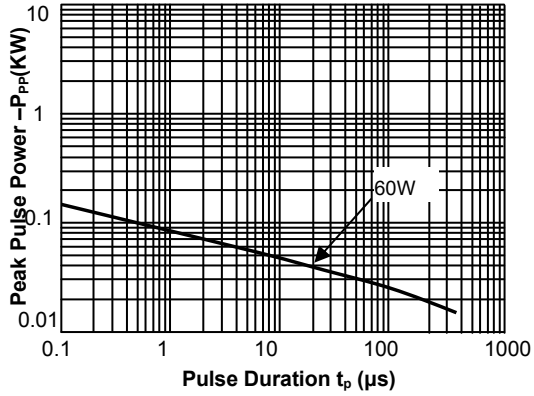


Fig.2 Pulse Derating Curve

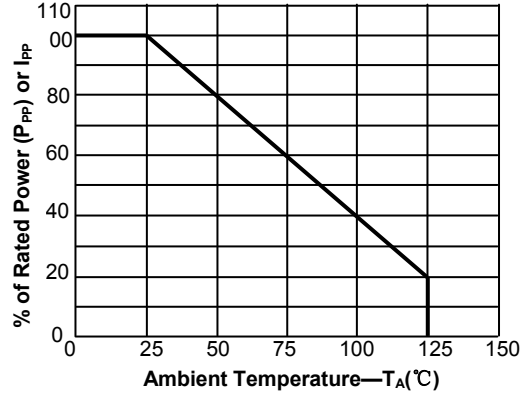


Fig.3 Pulse Waveform-8/20 $\mu s$

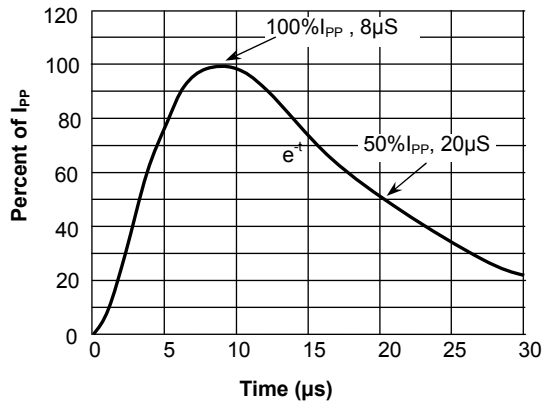
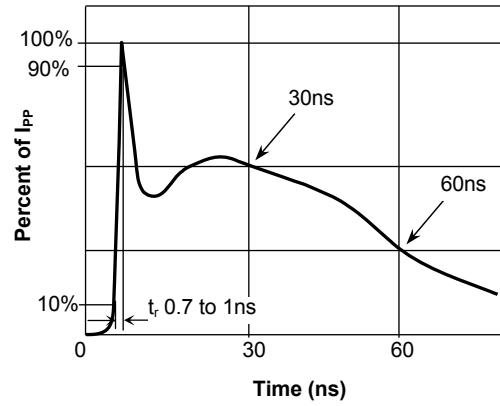
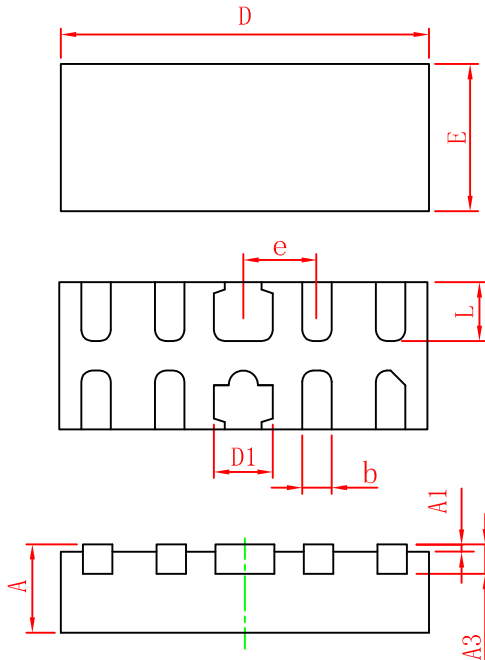


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



**PACKAGE MECHANICAL DATA**



Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.45	0.50	0.55
A1	-	0.02	0.05
A3	0.10	0.15	0.20
D	2.45	2.50	2.55
E	0.95	1.00	1.05
D1	0.35	0.40	0.45
b	0.15	0.20	0.25
e	0.50BSC		
L	0.35	0.40	0.45

**REEL SPECIFICATION**

P/N	PKG	QTY
RCLAMP0524P-MS	DFN2510-10	3000

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